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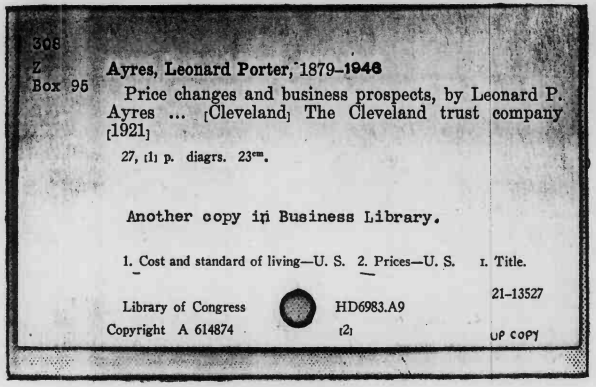

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PRICE CHANGES
AND
BUSINESS PROSPECTS

BY
LEONARD P. AYRES
VICE-PRESIDENT, CLEVELAND TRUST COMPANY

The
Cleveland
Trust Company

ECONOMIC REPORTS OF
THE CLEVELAND TRUST COMPANY

PRICE CHANGES AND
BUSINESS PROSPECTS

THE AUTOMOBILE INDUSTRY
AND ITS FUTURE

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AND
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PRICE CHANGES AND BUSINESS PROSPECTS

During the five years from the summer of 1915 to that of 1920 the cost of living in American cities doubled. In the following year it dropped rapidly, so that by the summer of 1921 much of the increase of the preceding five years had been wiped out. These changes are illustrated in Diagram 1.

The data used in constructing the diagram are those of the National Industrial Conference Board which publishes each month the latest figures of its index number for the cost of living. In compiling this number it is recognized that the different necessities of life are of varying relative importance in the family budget and weights are assigned to them on the basis of extensive studies that have been made of family expenses. These weights show how a typical family would spend $1,000 if this sum were normally distributed for the several necessities of life. They are shown in Table 1.

TABLE 1.—WEIGHTS ASSIGNED TO THE DIFFERENT ITEMS OF THE FAMILY BUDGET IN MAKING THE INDEX NUMBER FOR THE COST OF LIVING

Budget item	Relative importance in family budget
Food	$431
Shelter	177
Clothing	132
Fuel	37
Light	19
Sundries	204
Total	$1,000

In constructing the diagram several of these items have been combined so as to leave only four groups. The aggregate cost

of these items in 1914 is taken as 100 and the subsequent changes since that date are shown by the increases above that initial figure. The results are shown not only in Diagram 1, but also in the figures of Table 2.

TABLE 2.—COST OF LIVING FROM 1914 TO MAY 1921

Budget item	1914	End of 1915	End of 1916	End of 1917	End of 1918	End of 1919	July 1920	May 1921
Rent	18	18	18	19	21	25	28	30
Clothing	13	15	17	22	25	32	35	22
Food	43	45	55	66	78	83	94	66
All other	26	27	30	35	40	45	48	48
Total	100	105	120	142	164	185	205	166

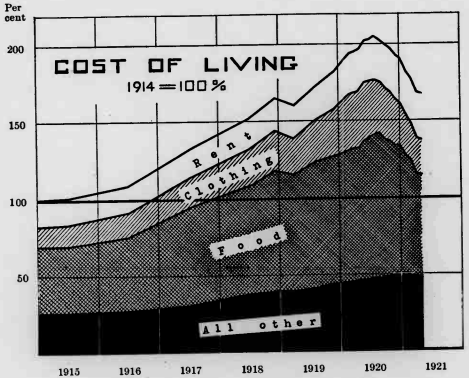

Diagram 1.—Cost of living from 1915 to 1921

The diagram is the graphic presentation of the quantities of Table 2. The lowest portion, in black, represents the amounts

of the lowest row of figures in Table 2. The surface above that, in double cross-hatching, shows the changes in the cost of food and represents the quantities of the figures for food in the table. Clothing is represented by the surface in single cross-hatching, and rent by that in outline at the top. Taken all together the four surfaces represent the changes in the cost of living over this period of more than six years.

Wholesale and Retail Prices

The figures for the cost of living are, of course, retail figures and if we eliminate rent from them, and supplement them by such other series of retail prices as are available in government reports, we may construct an index number to show the fluctuations in the general level of retail prices over this same period. This has been done and the results offer a means by which we can compare these retail prices with the index number for wholesale prices that is published each month by the United States Bureau of Labor Statistics. The results are set forth in Diagram 2 in order to note the differences between the changes in the price levels of the retail and the wholesale series.

The first noteworthy difference between the two curves in Diagram 2 is that the line representing the wholesale prices runs above that for retail prices during nearly the entire six year period. This does not mean that the wholesale prices were actually higher than the retail, but rather that the wholesale prices rose further in proportion to the level from which they started. Their relative increase was greater. This illustrates an important principle with regard to price movements, which is that changes in wholesale prices always tend to be more violent than those in retail prices.

The second noteworthy difference between the two curves is that changes in direction from rising to falling, or vice versa, always occur some months earlier in the wholesale curve than in that for commodities at retail. Thus in 1917, just after we entered the war, the wholesale prices stopped rising and ran along nearly level for some time before again beginning to go up.

After a lag of nearly six months the retail prices did the same thing. In 1918 the wholesale prices anticipated the armistice and stopped rising in September and began to fall, but it was not until January that the retail prices followed. When they began to go up again in the spring of 1919 the retail prices still lagged behind. Again in 1920 the same sequence may be noted, for the wholesale prices reached their peak and started down in May, but the retail prices did not reach theirs until July.

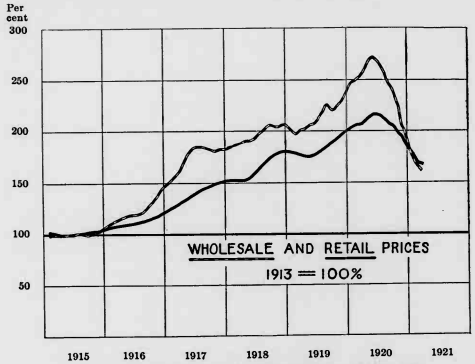

Diagram 2.—Wholesale and retail prices from 1915 to 1921

During the past year there has been an almost unbroken chorus of complaint in our newspapers and our legislatures because retail prices did not fall as rapidly as wholesale prices. The cause for the lead of the one and the lag of the other is to be found in economic law rather than in personal guilt and it would be well for those who make the complaints to note that the retail prices were slower and more moderate than the wholesale prices in their increases just as they are now falling with greater deliberation.

The cause for this difference may be easily illustrated. Suppose that you were a dealer in wheat at wholesale and also ran a bakery and sold bread over the counter. If, now some day, a cablegram came telling of an unexpected crop failure in the Argentine, you well know that the wholesale price of wheat would begin to move upwards within the next few minutes. You would not, however, on that day increase the price of the bread that you sold over the counter, for this bread would be made from the flour that had been bought at the old, low levels. Neither would you at once increase the wages of your employees and least of all would you expect your landlord to raise the rent of the bakery because of the receipt of the news that resulted in the higher wholesale price.

On the basis of considerations more or less similar to those that have been suggested we may lay down six general rules with regard to price movements, as follows:

1. Wholesale prices move first and farthest.
2. Retail prices move more slowly and less violently.
3. Wage levels change more slowly than prices.
4. Manufactured articles, having a high labor content, change their price levels more slowly than do raw materials, having a low labor content.
5. Salaries change more slowly than wages.
6. Rents change more slowly than prices, wages, or salaries.

Prices Abroad

While prices in this country were moving in the ways that have been noted, changes of a much more extensive sort were taking place in most of the other countries of the world. Diagram 3 shows the course of the index numbers for wholesale prices in Italy, France, England, and the United States. In each case the price level in 1913 is taken as 100 and the subsequent changes are expressed in percentage terms from that level.

The feature of the diagram that at once attracts attention is that each major or minor fluctuation in one curve is accompanied by some change of similar sort in each of the other

curves. This reflects the fundamentally important fact that nations are no longer economically independent. In our modern industrial age the welfare of each important nation is affected in greater or less measure by the prosperity or poverty of each other nation.

The second outstanding feature of the diagram lies in the clearness with which it shows the two great price movements of the war period and the post-war period. During the war there

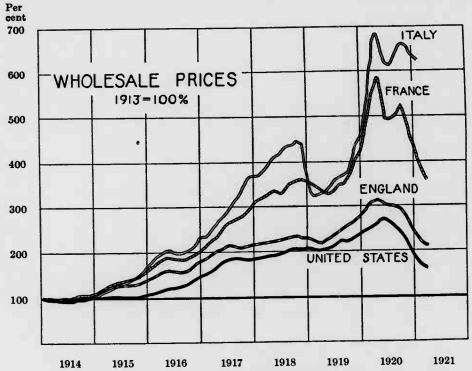

Diagram 3.—Wholesale prices in four countries from 1914 to 1921

was a very great rise in the general price level all over the world. When the armistice came, in 1918, prices fell everywhere and it was generally thought that they would continue to fall until they gradually went back to something like their old levels.

Then came the very great price increase of 1919 and 1920, which appears not to have been foreseen by anybody anywhere, and it has been followed by the most rapid and continuous collapse of prices that economic history records.

The third noteworthy condition that the diagram emphasizes is the striking difference between the relatively moderate price increases in this country and the enormous increases in France and Italy. This largely represents the differences in the relative soundness of the currencies in which the prices are paid. In this country we are on a gold basis. In England there is every reason to believe that a genuine return to a gold basis will come before very long. In France and in Italy no such reasonable prospect exists and there is grave reason to doubt whether the currencies of these nations, and of most of the others that were participants in the war, on either side, can be restored to their old values.

Wholesale Prices from 1810 to 1920

Dr. Ralph G. Hurlin, who is the statistician of the Russell Sage Foundation in New York City, has carried back the index number for wholesale prices in this country until we now have available the figures for a period of 110 years. Diagram 4 shows how prices have varied during those 11 decades. As in the cases of the previous diagrams, it is constructed so as to show the prices of 1913 and 1914 as being equal to 100, and those of other years as being proportionately greater or less.

The diagram shows that the recent great rise in prices is the third, of substantially the same amount, that this country has experienced. All three have come in times of great wars. The first took place during the war of 1812, which was in reality this country's participation in the Napoleonic wars. The second came during the Civil War, and this most recent one during the World War.

If one will examine carefully the contour of the curve of prices during this period of 110 years he will find that it is a condensed version of the economic history of the country. Each important change in tariff and in national financial policy is reflected, together with the different periods of prosperity and depression, and the several wars.

The most significant fact revealed by the diagram, however,

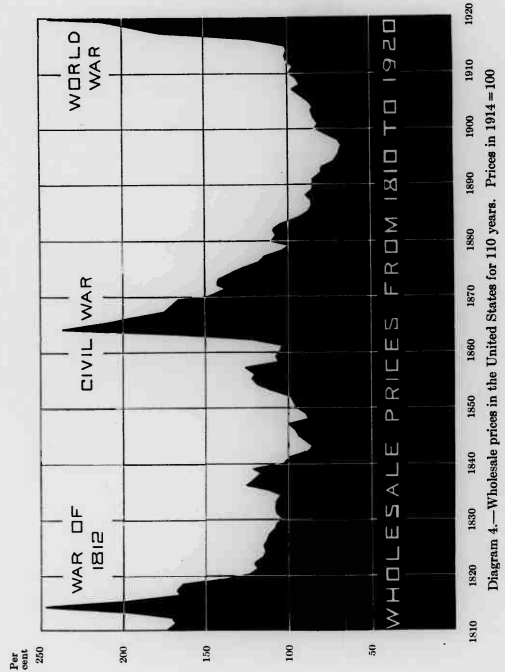

Diagram 4.—Wholesale prices in the United States for 110 years. Prices in 1914=100

is that each of the two previous great price increases has been followed by a 30-year period of irregularly falling prices, and a 20-year period of generally rising prices. At the present time prices are rapidly falling and it is most important for the business man to consider whether or not it is probable that this is the beginning of a long term of falling prices and, if so, what this means for business.

There is much evidence to indicate that the general trend of prices will be irregularly downward for a period of years to come, just as it was after the two earlier great increases. One reason why we may expect this lies in the very fact that prices are and have been high. Another is to be found in the world's decreasing production of gold. A third lies in the enormous losses of lives and property in the past few years, with the accompanying disorganization of the world's industrial producing power. A fourth is in the depreciated currencies of the world which the stronger nations will endeavor by every means in their power to stabilize and make more valuable.

As these countries regain their industrial productivity they will, one by one, attempt to establish an adequate gold basis for their paper currencies. It is highly probable that several of them will find it impossible to re-establish their money at its old value as compared with our dollars, but even if they adopt some new ratio of worth they must somewhere obtain more gold as a basis for doing it.

There is only one place from which they can get that gold and that is from this country, for we now possess a large part of the world's currency gold. They will try to secure it by sending to this country their commodities and selling them here, and each time that this happens on any large scale our own prices will tend to fall. For all these reasons it seems probable that we are entering on a long period of falling prices and it is well for us to consider what that means to us.

Falling and Rising Prices

In a long period of falling prices any regular payment of a fixed sum, like the annual installment on a mortgage, is harder to make each year than it was the year before. The rent is harder to pay and the taxes are more difficult to meet. If you are a farmer and pay $200 a year on a mortgage it takes only 100 bushels of wheat to meet the payment when the price is $2 a bushel, but it takes 200 bushels when the price drops to $1 a bushel.

If you are a manufacturer and buy raw material which you make into a finished product, the value of the material shrinks while you are making it up and you must sell at less than you expected to or take a smaller profit than you had intended. The rent and the taxes of your factory are in reality paid in units of the articles that you manufacture and each year it takes more and more of these articles to pay them.

In a long period of rising prices all these conditions are reversed. The annual payment is each year easier to make; the rent is easier to pay; the taxes are easier to meet. The manufacturer buys his raw material and the longer he keeps it the more it is worth. He makes not only the profit that he expected to, but something more as well. In periods of very rapid price increase, such as those that we have just passed through, he may find it more profitable to sell his material without making it up and in this way large profits come to middlemen through buying goods and reselling them at higher figures.

It is in this sort of an industrial and commercial world that America's business men have lived and worked during the rapidly rising prices of the past 20 or 25 years. Optimism has become the business religion. The man who had faith in the future, and nerve, and imagination, and was willing to take chances, was the man who received society's great rewards.

Our fathers lived in a different business world. Most of them had their active careers in the long 30-year period of falling prices following the Civil War. In thrifty New England during that time it came to be considered almost a disgrace to have a

mortgage on one's farm because ample experience had shown that the signing of the mortgage was often the first move towards the poorhouse. Caution, and thrift, and careful attention to details, rather than bold enterprise, were the essentials for success.

It is often deplored that there is but little sympathy between young men and old men in discussions about business. It cannot be otherwise. They have lived in two different business worlds and they talk different languages and judge by opposing standards.

It was during the long period of falling prices that people began to refer resentfully to the wealthy as "bloated bondholders." The bond pays its owner each year a fixed number of dollars and, when these will buy more and more things as each year passes, the possessor of the bond grows increasingly wealthy through no effort of his own. The man who buys a bond buys money in the future.

During recent years bondholders have not been popularly referred to as "bloated" because it came to be realized that their fixed incomes were worth less and less each year. There has grown up instead the phrase "captains of industry" because the public realized that it was the industrial manufacturer, and the stockholder in the industry, who were reaping the large profits. The man who buys stocks in industrial concerns is really buying commodities in the future.

In long periods of rising prices industrial stocks profit at the expense of the corresponding bonds. The bond is then expensive for the owner but profitable for the issuer, while the stocks are profitable for the owner and expensive for the issuer. In periods of falling prices all this is reversed. The bondholder profits at the expense of the stockholder. The bond is an expensive liability for the company that puts it out but a profitable investment for the person who holds it.

As we enter upon this period of declining prices business concerns should endeavor to pay off their indebtedness before the dollar increases still more in its purchasing power. Those which

still retain earnings accumulated during the recent period of high profits should conserve them and will greatly profit from having them, while those which distributed in dividends their extraordinary earnings, made during the period of rising prices, must expect to exercise the greatest efforts now to make up for their past generosity.

Borrowing on short maturities is particularly advisable while interest rates remain high. As prices fall money rates will eventually decline also and then those who have borrowed on a short term basis will be able to renew their loans or to refund them at lower rates than could be obtained now.

Wages from 1820 to 1920

A careful study of the course of wages during the past 100 years has been made by the same Dr. Ralph G. Hurlin who compiled the data on wholesale prices. The results of this study are presented in Diagram 5, on which there are two lines representing the course of the weekly wages of artisans and of laborers during the past century.

The upper line shows the average weekly wages each year of five sorts of artisans: carpenters, house painters, machinists, blacksmiths, and compositors. The lower line shows the weekly wages of adult, white, male, unskilled laborers in industrial establishments.

One hundred years ago, in 1820, the average weekly wage of the artisans was about $7. This rose steadily during the next 40 years until it was about $10 a week in 1860, just before the outbreak of the Civil War. During the course of that struggle these wages rose from the $10 level to $15 and then kept on rising until 1869, or four years after the close of the War, when they passed $17. Then came 10 years of decline until 1879 when they were $14.74. A slight recovery lifted them just above $15 where they stayed for 20 years, or until 1900. They then rose for 15 years, or until 1915, when they amounted to $21.38, and shot up for five years during the World War, and for two years after its close, to an average of $42 in 1920.

During this entire period of 100 years the course of the wages of common labor ran along nearly parallel to that of the artisans and throughout the century their relationship to each other is such that the artisan wage is almost always about 180 per cent of the common labor wage.

As compared with the changes in wholesale prices, the variations in wages came tardily and moderately, conforming in these

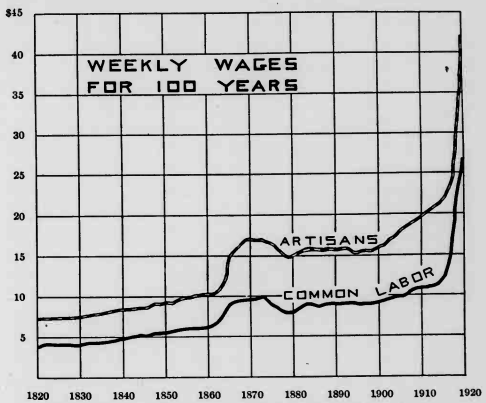

Diagram 5.—Weekly wages of artisans and laborers for 100 years

respects to the general economic laws that were set forth earlier in this paper. This, however, is not a sufficient explanation of the marked differences between the great changes in prices in the half century following the Civil War, and the comparatively moderate changes in wages. From 1870 to 1896 prices fell 55 per cent while artisans' wages declined only 9 per cent. From that date to 1915 wholesale prices rose 51 per cent and wages only 38 per cent.

It is worth while to consider how such great differences were possible, since in large measure the workers that produce the commodities constitute the consuming public that purchases them. This means that there must always be a general balance between wages and prices and yet the figures make it look as though such a balance had not existed.

Most of the explanation is to be found in the revolutionary changes that took place in industry during that half century and greatly increased its productive capacity. The Civil War ushered in the modern era of great industries. Before that time there were few large factories in the modern sense of the term and much of manufacturing work was still done in the homes of the people.

In New England one may still see the additions to the old farm houses that were built in the Civil War for the purpose of sheltering the members of the family and the neighbors while they made shoes and uniforms for the soldiers. The material was cut up in the shop in the village but the making was done in the homes. Large factories, as we know them, hardly existed.

The Civil War brought the beginnings of quantity production. It was followed by important inventions and the introduction of large units of power. Then came factories, automatic and semi-automatic machinery, electricity, and high speed steel. These advances in production enabled each worker to produce each day more than he had formerly and, since his productivity was greater, his wages did not need to decline in proportion to the prices of commodities. His share in the output increased; and his standard of living rose.

The question as to whether or not we are to see wages shrink far less than prices in the next few years is largely a question of what happens to the efficiency and productivity of industry. If improvements in processes and in management can largely increase the output per worker per day, then wages will not have to decline so far as prices. If, on the other hand, the output does not come up, then wages cannot permanently retain the gains they have made.

Diagram 6 shows the course of the average monthly prices of common stocks of 25 industrial corporations over the past 22 years. The line shows that these prices moved in a series of great waves, or cycles, each of which lasted several years. When the prices were high we were in periods of prosperity and the profits of these corporations were large. When they fell it was because we were entering periods of business depression, with accompanying low profits. The 25 industrial common stocks entering into this average are the following:*

Allis-Chalmers Manufacturing Company
American Agricultural Chemical Company
American Beet Sugar Company
American Car and Foundry Company
American Cotton Oil Company
American Hide and Leather Company
American Linseed Company
American Locomotive Company
American Sugar Refining Company
American Woolen Company
Central Leather Company
Corn Products Refining Company
International Paper Company
National Biscuit Company
National Enameling and Stamping Company
National Lead Company
New York Air Brake
Pressed Steel Car Company
Railway Steel-Spring Company
Republic Iron and Steel Company
Sloss-Sheffield Steel and Iron Company
United States Cast Iron Pipe and Foundry Company
United States Rubber Company
United States Steel Corporation
Virginia-Carolina Chemical Company

The prices of industrial stocks constitute one of the most reliable indicators of the ebb and flow of business prosperity.

* Note: Twenty of these 25 stocks are those selected for similar use by the Harvard University Committee on Economic Research which has done much of the most valuable work in this field of study.

Their market values are recorded every day in the stock market so that information concerning them is always up to date and always trustworthy. They furnish a most sensitive barometer of business conditions because their movement usually precedes that of most other available records of commercial and industrial activity. They begin to go down while reports of business activity are still optimistic and they usually start up again be-

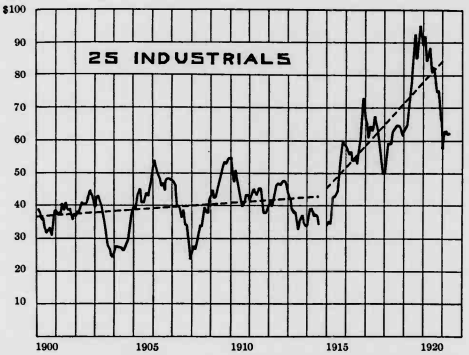

Diagram 6.—Average monthly prices of 25 industrial common stocks from 1900 to 1921. Dashed lines show trends

fore other signs of the coming prosperity which they foretell are apparent.

An inspection of Diagram 6 shows two salient characteristics. The first is the one that has already been mentioned, that the average price of these stocks has advanced irregularly and in a series of wave-like major fluctuations, broken by numerous minor fluctuations. The average monthly prices, as shown in graphic form in the diagram, are the averages of the points half-

way between the highest quotation for each month over this 22-year period and the lowest quotation for that same month for each stock.

The second outstanding feature of the diagram is that the line of average values tends to go up as the years pass. The increase was comparatively gradual over the 15-year period from 1900 to the closing of the stock market, on the outbreak of the war in 1914, and very rapid during the six-year period from 1915 through 1920. Over the whole period the general tendency is for each new high point to be higher than the preceding, and for each new low to be somewhat above the one before.

The reason for this tendency to rise is that these industrial corporations have been growing richer with the passing years and their shares represented increasing real values. They owned more and larger factories and better equipment. They had greater reserves and the actual book value of their securities was increasing. This is well illustrated in the case of the common stock of the United States Steel Corporation which sold for $8.37 in May, 1904, during the latter part of the depression of that year, but only for a short time fell as low as $80 in the severe depression of 1920 and 1921.

In the diagram a straight line of dashes has been drawn through the irregular line of prices from 1900 to 1914, and another from 1915 to 1920. These straight lines show the general trend of the increasing values of the stocks. They are drawn by the mathematical method of least squares, and may be defined as being lines that express the general trend or direction of the irregular lines through which they are drawn, more closely than could any other straight lines that might be constructed. In a certain real sense they may be considered as showing the normal average price of these stocks at any given time and the fluctuations above and below these slanting lines show periods of prices that were above or below the normal values.

Alternating Periods of Prosperity and Depression

If we think of these straight trend lines as representing normal prices it becomes a simple matter to construct another diagram, based on the data of the one just considered, and showing this time the amounts by which the average price was above or below the normal price each month during these 22 years. This is done by redrawing our two straight, slanting trend lines as a continuous horizontal line, and then indicating the fluctuations of the irregular price line above and below it. This is done in Diagram 7 which is merely Diagram 6 redrawn, as described, by making the two slanted dash lines into one continuous heavy horizontal line which is now the axis of the new diagram. This normal line is indicated on the scale as the zero line and the fluctuations above are in terms of dollars more than normal, while those below are in terms of dollars less than normal.

One qualification should be noted with regard to what has just been stated. This is that the deviations from the normal in 1920 and 1921 have been figured from an imaginary level line instead of from the slanted trend line of Diagram 6. This is because it seems certain that the general tendency of these stocks to increase in value at the war-time rate came to a termination at about the beginning of 1920. For this reason a level trend line has been assumed from that point.

In Diagram 7 the swings from depression to prosperity and back again are most easily followed. The depression of 1900 was followed by recovery in the next two years. This was succeeded by the crisis of 1903–4 which was followed by the great prosperity of 1905 and 1906. Then came the panic of 1907–8 and the prosperity of 1909 and 1910. The prosperity of 1912 was followed by the depression of 1913–14 which preceded the breaking out of the war. When the market opened again we went into the sudden and great prosperity of 1915 and 1916 which was stimulated by the war orders of Europe. Then followed our own entry into the war in the spring of 1917 with a consequent disturbance of industry reflected by falling security prices. This continued until after the signing of the armistice

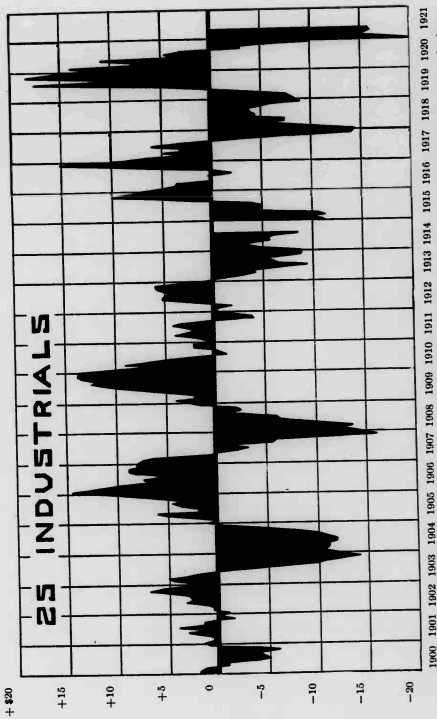

Diagram 7.—Fluctuations, above and below normal, of average monthly prices of 25 industrial common stocks from 1900 to 1921

in the fall of 1918 and gave way to the great wave of industrial prosperity in 1919 which was coincident with the rapid post-war rise in prices.

The descent from these heights of prosperity and the inflated commodity prices was anticipated by the stock market, which broke in November, 1919, and carried security quotations down for more than a year to the low point of December, 1920. From that point there was a sharp but short recovery that brought prices up nearly five points from their lowest records and has maintained them about there during the first four months of 1921.

The extreme fluctuations of the latest periods of prosperity and depression are worth noting. In Diagram 7 the high point of 1919 is higher than any previous high point and the low of 1920 is lower than that recorded in any earlier depression. These extreme swings are in part due to the fact that the average price of the stocks has been increasing over this period of years so that wider fluctuations may reasonably be expected. After every such allowance has been made, however, it remains evident that the extreme industrial activity and prosperity of 1919 were almost without precedent, while the ensuing decline of 1920 was such as has seldom before been equalled even in those extreme periods that we have come to know as crises and panics.

The fact is that we have been passing through a kind of silent panic that has not generally been recognized as such because there have not occurred those spectacular insolvencies of banks and of great industrial corporations that have signalized previous similar periods. This is in part due to the accumulation of resources during the period of war prosperity and, in still greater measure, to the existence of the Federal Reserve Banks, which has imparted elasticity and adaptability to our financial system and prevented an acute credit stringency.

The immediate interpretation of the present situation as shown on the diagram is that some substantial improvement of present conditions cannot be long delayed. There has never been a time when the prices of these stocks have long stayed down at anything like their present relative levels. The reasonable interpretation of the lessons of the past is that substantial improvement may be expected before long and that the rise in the prices of the industrial stocks will be followed shortly by a general improvement in business conditions.

There is another equally apparent, and less cheering thought to be derived from this diagrammatic silhouette representing our recurrent periods of prosperity and depression, profit and loss, activity and unemployment, over-production and under-production. This is the realization that when the business recovery comes and runs its course it will almost inevitably over-run its reasonable limit.

In general our periods of prosperity have culminated in bursts of speculation, while the following times of depression have produced insolvencies, idleness, want, and discontent. These extremes are undesirable and they are in the main avoidable. It is intolerable that we should look forward to an indefinite future of these recurring attacks of business and industrial chills and fever.

One great step towards avoiding them has been taken in the adoption of the Federal Reserve system. Another important preventive will be available when we inaugurate a national system of production statistics currently gathered, and promptly available. A third important step towards avoiding them lies in the use of just such methods for charting our position in the business cycle as have been used here.

Almost the most important single item of knowledge that a business man can have is that which tells him in what part of the business cycle he is at any given time. If business is at about normal it makes a great deal of difference whether it is at normal on the way up, or at normal on the way down. Largely in

proportion as the business man knows about this most important matter will he be able to conserve his gains and to guard against losses.

The business man who does not know in what part of the business cycle he is at any given time occupies the position that the farmer would be in if he had a thermometer but no calendar or almanac. Such a farmer would know perhaps that the weather during the past week had been warm but if this should lead him to mistake the Indian Summer of the autumn for spring time, and to plow and sow with the expectation of gathering a harvest later on, he would be doing what business men do just at the culmination of each period of prosperity.

In proportion as knowledge of business cycles and of the principles of price movements becomes more general the extremes of these fluctuations will tend to be shorter and lower, and the times of transition will tend to come and go less rapidly.

Business and the Temperature

As an illustration of the similarity between the recurring ups and downs of the business cycles and the procession of the seasons of the year, Diagram 8 has been constructed. It shows for

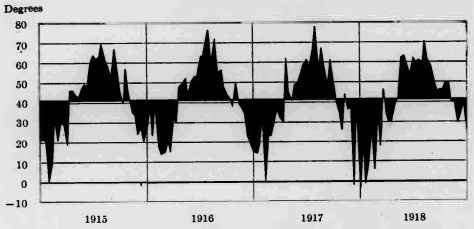

Diagram 8.—Lowest recorded temperature each 10 days in Cleveland for four years

the city of Cleveland the minimum temperature each 10 days during the four years from 1915 through 1918.

The general resemblance between it and the preceding diagram is marked. It shows that the progress from the warm weather of summer to the cold days of winter, or vice versa, is sometimes regular and even, and in other years most irregular. It shows that some highs are higher than those of previous years and some lows distinctly lower than the previous experience would lead one to expect.

Caution and Courage

In urging that more extended use be made of such data as those on which Diagram 7 is based it may be suggested that a drawing such as that one could be improved by constructing two shaded strips across it, one above the normal line at about the plus 10 level, and the other below it at about the minus 10 level.

The upper strip could be lettered "Zone for Caution" for it is at these times of culminating prosperity that the business man most needs to exercise care. When orders are plentiful and profits large, when prices are high and selling is easy, the time has come to be careful. That is the time to consolidate the gains that have been made, to reduce inventories, to collect accounts, to avoid new construction, and to prepare to build up bank credits.

The lower strip might be lettered "Zone for Courage" because it is when the prices of securities are lowest, and business prospects bluest, that courage becomes most valuable. It is then that the man who has hope, and faith, and the courage of his convictions can start his journey along the path that leads to prosperity, to success, and perhaps to fortune.

Summary

1. Business prosperity depends on the prices of things, of services, and of money, and on the relation of each to the others.

2. When prices are changing, wholesale prices move first and most, retail prices next, wages next, and rent last and least.

3. Any considerable change in the general price level of other countries is reflected by corresponding changes in the price

levels of this country. We are no longer economically independent. The prosperity of each country is in part dependent on the prosperity of other countries.

4. While price inflation and reduction have been serious here, they have been far more violent abroad. We are less hard hit in this period of readjustment than is any other important nation.

5. Three times during the past 110 years the general wholesale price level has reached the 1920 figures. In each of the two previous cases the peak of high prices has been followed by about 30 years of irregularly falling prices and then by about 20 years of rising ones.

6. It is probable that we are entering upon an extended period of falling prices, broken by occasional shorter periods of rising prices. The conduct of business in such times presents radically different problems from those to which Americans have become accustomed during the past quarter century of rising prices and shrinking dollars.

7. During times like the present, when prices are high but falling, plant extensions should be avoided unless greatly needed; financing should be on short maturities if possible; debts should be paid before the dollar gets still more valuable, and hence harder to secure; the accumulation of stocks of raw materials should be avoided; bank balances should be built up; bonds should be purchased.

8. So long as the dollar continues to increase in purchasing power, debts, rents, and taxes will be harder to pay. Business transactions or investments, through which stated sums of money will be received at periodic intervals in the future, will prove more profitable than present standards would lead one to believe, while agreements to pay fixed amounts at future dates will be more difficult to live up to than present conditions and past experience would indicate.

9. In the long period of falling prices following the Civil War wages declined far less than did prices. In that same period the productivity of labor greatly increased as the mechanical means

of production were improved. The future course of wages depends largely on the degree to which the per capita output can be increased through improvements in management, processes, and machinery.

10. The immediate prospects of business at any given time can best be judged by studying the development of business cycles which progress through phases of prosperity, forced production, liquidation, and readjustment back to a revival of prosperity. They are most accurately foretold by the changes in the market prices of industrial securities. At present we are passing through the latter stages of liquidation, and have entered upon those of readjustment.

END OF
TITLE